

CLAIMS

1. (Currently Amended) A fax communication, comprising:
a first fax machine;
a second fax machine to establish a communication path with the first fax machine;
a network device to accumulate a portion of the fax information received from the first fax machine over a public switching telephone network after the communication path is established, to detect errors in the accumulated portion of the fax information using cyclic redundancy code (CRC) error checking and correction, to stall the second fax machine responsive to detecting errors in the accumulated portion of the fax information, and to send the accumulated portion of the fax information across the packet switching network to the second fax machine responsive to detecting no errors in the accumulated portion of the fax information.
2. (Original) A system as recited in claim 1 wherein the fax information is transmitted between the first fax machine and the second fax machine in real-time.
3. (Original) A system as recited in claim 1 wherein the stalling signal is in the form of a fax cover page.
4. (Original) A system as recited in claim 1 wherein the stalling signal is a nonfunctional command.
5. (Original) A system as recited in claim 1 wherein the stalling signal is invalid data.
6. (Canceled)
7. (Previously presented) A system as recited in claim 1 wherein the fax information includes fax pages with each page comprising one or more blocks having one or more frames and further wherein the network device for accumulating one or more frames of a block, within the accumulation block, as the accumulated portion of fax information.

8. (Original) A system as recited in claim 1 wherein the network device is a router.

9. (Previously presented) A system as recited in claim 1 wherein the network device further for detecting errors in the accumulated portion of the fax information, for retransmitting the accumulated portion back to the first fax machine, for receiving the accumulated portion, error-free, and for transmitting the error-free portion through the packet switching network to the second fax machine thereby minimizing retransmissions of the portion or any sub-portion thereof of the fax information through the packet switching network to avoid an avalanche effect.

10. (Previously presented) A system as recited in claim 1 wherein the network device further includes a digital signal processor for modulating/demodulating the fax information.

11. (Previously presented) A system as recited in claim 10 wherein the network device further includes a central processing unit, coupled to the digital signal processor, for accumulating the fax information and for forming from the fax information.

12. (Previously presented) A system as recited in claim 11 wherein the network device further includes a memory coupled to the central processing unit for storing the fax information and software means for reading the stored fax information and for transmitting the fax information through the packet switching network.

13. (Previously presented) A system as recited in claim 1 wherein the network device is responsive to the fax information received from the first fax machine through an interface defined by the TCP/IP protocol.

14. (Previously presented) A system as recited in claim 1 wherein the network device is coupled to the first fax machine through a public switching telephone network.

15. (Previously presented) A system as recited in claim 1 wherein the network device is coupled, through the packet switching network, to a receiving network device, coupled to the second fax machine, the receiving network device for transmitting the fax information to the

second fax machine and upon detection of errors within the fax information, for receiving a retransmission of the fax information from the second fax machine and repeating retransmissions until the fax information is transmitted, error free, to the second fax machine.

16. (Currently Amended) A method for transmitting fax information between a first fax machine having error correction capability and a second fax machine, the first and second fax machines being coupled to communicate with one another across a packet switching network, in the form of packets organized into frames, comprising:

establishing a communication path between the first and second fax machines;

receiving fax information over a public switching telephone network from the first fax machine;

accumulating at least one frame being a portion of the fax information;

performing error checking and correction using cyclic redundancy code (CRC) on the at least one frame;

stalling the second fax machine while accumulating the portion of fax information; and

transmitting, to the second fax machine, the accumulated portion of fax information, free of errors, across the packet switching network thereby avoiding re-transmission of the portion or any sub-portions thereof across the packet switching network.

17. (Previously presented) A method as recited in claim 16 further including the steps of detecting errors in the accumulated portion of the fax information, retransmitting the accumulated portion back to the first fax machine, receiving the retransmitted portion and transmitting the received retransmitted portion free of errors across the packet switching network.

18. (Currently Amended) An apparatus:

a means for establishing a communication path between a first and second fax machine;

a means for receiving fax information over a public switching telephone network from the first fax machine;

a means for accumulating at least one frame being a portion of the fax information after establishing the communication path;

a means for performing error checking and correction using cyclic redundancy code (CRC) on the at least one frame;

a means for stalling the second fax machine while accumulating the portion of fax information; and

a means for transmitting, to the second fax machine, the accumulated portion of fax information, free of errors, across the packet switching network thereby avoiding re-transmission of the portion or any sub-portions thereof across the packet switching network.